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Established Maximum Residue Limit

EMRL2008-02

Transitioning the Legal Establishment of Maximum Residue Limits (MRLs) for Pesticides From the *Food and Drugs Act* to the *Pest Control Products Act*: Establishment of MRLs

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On 20 December 2006, Health Canada's Pest Management Regulatory Agency (PMRA) published for consultation Proposed Maximum Residue Limit document PMRL2006-01, *Transitioning the Legal Establishment of Maximum Residue Limits (MRLs) for Pesticides from the Food and Drugs Act to the Pest Control Products Act: Consultation on Proposed MRLs*. The document included MRLs proposed by the PMRA, prior to the Pest Control Products Act (PCPA) coming into force on 28 June 2006, and that had not been prepublished for comment in the *Canada Gazette*, Part I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs was also conducted internationally via notification to the World Trade Organization, as coordinated by the Standards Council of Canada.

Appendix I summarizes the comments received in response to PMRL2006-01 and provides the PMRA's responses. Certain comments have led to the re-examination of supporting residue data, which has affected the MRLs to be established as a result of this action.

There have been several minor revisions to commodity descriptors to reflect current preferred terms and crop groupings but the scope of the MRLs identified herein are consistent with those proposed in PMRL2006-01, except where otherwise noted.

The MRLs identified herein are legally in effect as of the date of publication of this document.

A complete list of all MRLs established in Canada can be found on the PMRA's MRL webpage.

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1.0 Additional MRLs for Chemicals With Currently Established MRLs

1.1 Azoxystrobin

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Azoxystrobin	(αE)-methyl 2-[[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-α-(methoxymethylene) benzeneacetate, including the isomer (Z)-methyl 2-[[[6-(2-cyanophenoxy)-4-pyrimidinyl]oxy]-α-(methoxymethylene) benzeneacetate	27	New Zealand spinach, spinach, vine spinach
		17	Amaranth, arugula, cardoon, celery, celtuce, Chinese celery, corn salad, dandelion leaves, dock, edible leaved chrysanthemums, endives, fresh chervil leaves, fresh Florence fennel leaves and stalks, fresh parsley leaves, garden cress, garden purslane, garland chrysanthemums, head lettuce, leaf lettuce, orach leaves, radicchio, rhubarb, Swiss chard, upland cress, winter purslane
		7.0	Green onions
		4.0	Rice
		3.3	Orange oil
		1.6	Edible-podded peas
		1.2	Bananas ¹
		0.8	Calamondins, citrus citrons, citrus hybrids, grapefruits, kumquats, lemons, limes, oranges, pummelos, satsuma mandarins, tangerines
		0.7	Dry bulb onions
		0.55	Pistachios

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.5	Balsam apples, balsam pears, black salsify roots, cantaloupes, carrot roots, celeriac roots, chayote fruit, chicory roots, Chinese cucumbers, Chinese waxgourds, citron melons, cucumbers, edible burdock roots, edible gourds (other than those listed in this item), garden beet roots, ginseng roots, horseradish roots, muskmelons (other than those listed in this item), oriental radish roots, parsnip roots, pumpkins, radish roots, rutabaga roots, salsify roots, skirret roots, Spanish salsify roots, summer squash, turnip-rooted chervil roots, turnip-rooted parsley roots, turnip roots, watermelons, West Indian gherkins, winter squash
		0.45	Peanut oil ²
		0.35	Dry soybeans
		0.3	Sugar beet roots
		0.2	Corn oil, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, grain lupin
		0.15	Peanuts ³
		0.04	Asparagus
		0.03	Field corn, potatoes, sweet corn kernel plus cob with husks removed

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.02	Almonds, beechnuts, black walnuts, Brazil nuts, butternuts, cashew nuts, chestnuts, chinquapins, English walnuts, filberts, hickory nuts, macadamia nuts, pecans ⁴
		0.01	Eggs; fat, liver and meat of poultry
		0	Milk
¹	Existing MRL for bananas amended from 1.0 ppm to 1.2 ppm.		
²	Existing MRL for peanut oil amended from 0.03 ppm to 0.45 ppm.		
³	Existing MRL for peanuts amended from 0.01 ppm to 0.15 ppm.		
⁴	Existing MRL for pecans amended from 0.01 ppm to 0.02 ppm.		

1.2 Chlorothalonil

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Foods
Chlorothalonil	tetrachloroisophthalonitrile, including the metabolite 4-hydroxy-2,5,6-trichloro-1,3-benzenedicarbonitrile	0.1	Asparagus

1.3 Clomazone

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Clomazone	2-(2-chlorobenzyl)-4,4-dimethyl-1,2-oxazolidin-3-one	0.05	Sweet potato roots

1.4 Clopyralid

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Clopyralid	3,6-dichloro-2-pyridinecarboxylic acid	0.1	Blueberries

1.5 Cyprodinil

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Cyprodinil	4-cyclopropyl-6-methyl- <i>N</i> -phenylpyrimidin-2-amine	12	Watercress
		9.0	Mustard greens, turnip tops
		6.2	Blackberries, loganberries, raspberries
		4.0	Green onions
		3.5	Strawberries
		2.0	Blueberries, currants, elderberries, gooseberries, huckleberries, lingonberries, salal berries, Saskatoon berries (juneberries)
		1.0	Cabbages
		0.75	Carrot roots
		0.6	Dry bulb onions
		0.05	Pistachios

1.6 Difenoconazole

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Difenoconazole	1-[2-[4-(4-chlorophenoxy)-2-chlorophenyl]-4-methyl-1,3-dioxolan-2-ylmethyl]-1 <i>H</i> -1,2,4- triazole	0.01	Buckwheat, oats, pearl millet, popcorn grain, proso millet, rice, rye, sorghum, teosinte, triticale, wild rice

1.7 Dimethenamid

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Dimethenamid	2-chloro- <i>N</i> -(2,4-dimethyl-3-thienyl)- <i>N</i> -(2-methoxy-1-methylethyl)acetamide	0.02	Dry kidney beans, dry otebo beans, dry soybeans, field corn, sweet corn kernel plus cob with husks removed, white beans

1.8 Diquat

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Diquat	9,10-dihydro-8a,10a-diazonia-phenanthrene ion	1.0	Rapeseed (canola), mustard seeds
		0.2	Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, grain lupin
		0.1	Potatoes
		0.05	Dry soybeans, sunflower seeds
		0.02	Apples, apricots, barley, bok choy Chinese cabbages, broccoli, broccoli raab, Brussels sprouts, cabbages, carrot roots, cauliflower, Chinese broccoli, Chinese mustard cabbages, collards, crabapples, cucumbers, dry bulb onions, field corn, garden beet roots, grapes, green onions, kale, kohlrabi, loquats, mayhaws, mustard greens, mustard spinach, Napa Chinese cabbages, nectarines, oats, oriental pears, peaches, pears, plumcots, plums, prune plums, quinces, rape greens, rye,

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			sweet cherries, sweet corn kernels plus cob with husks removed, tart cherries, triticale, turnip roots, wheat

1.9 Fenamidone

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Fenamidone	(5 <i>S</i>)-3,5-dihydro-5-methyl-2-(methylthio)-5-phenyl-3-(phenylamino)-4 <i>H</i> -imidazol-4-one	20	Leaf lettuce
		15	Head lettuce
		2.2	Tomato paste
		2.0	Tomato puree
		1.5	Green onions
		1.0	Grapes, tomatoes
		0.2	Dry bulb onions
		0.15	Balsam apples, balsam pears, cantaloupes, chayote fruit, Chinese cucumbers, Chinese wax gourds, citron melons, cucumbers, edible gourds (other than those listed in this item), muskmelons (other than those listed in this item), pumpkins, summer squash, watermelons, West Indian gherkins, winter squash

1.10 Fenhexamid

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Fenhexamid	<i>N</i> -(2,3-dichloro-4-hydroxyphenyl)-1-methylcyclohexane carboxamide	0.3	Ginseng roots

1.11 Fluazifop-butyl

Note: Fluazifop-butyl was listed as fluazifop-p-butyl under Section 2.7 in PMRL2006-01 but is corrected below to reflect the racemate, for which MRLs are already established, in accordance with Appendix I, Section 3.0.

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Fluazifop-butyl	butyl (<i>RS</i>)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate	0.03	Grapes
(calculated as acid)			

1.12 Fludioxonil

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Fludioxonil	4-(2,2-difluoro-1,3-benzodioxol-4-yl)-1 <i>H</i> -pyrrole-3-carbonitrile	8.0	Mustard greens, ¹ turnip tops
		5.0	Watercress
		4.2	Blackberries, loganberries, raspberries
		2.0	Blueberries, cabbages, currants, elderberries, gooseberries, huckleberries, lingonberries, salal berries, Saskatoon berries (juneberries)
		0.75	Carrot roots
		0.08	Pistachios

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.05	Eggs; fat, kidney and liver of poultry; flaxseed
		0.02	Allspice, angelica, anise hyssop leaves, anise seeds, anise star, annatto seeds, arracacha, arrowroot, barley, black caraway seeds, black pepper, black salsify roots, black salsify tops, buckwheat, burnet leaves, camomile, caper buds, caraway seeds, cardamom amomum seeds, cardamom seeds, cassava leaves, cassava roots, cassia, catnip, celeriac roots, celeriac tops, celery seeds, chayote roots, chicory roots, chicory tops, Chinese artichokes, Chinese chives, Chinese onions, chive leaves, chufa, cinnamon, cloves, common fennel seeds, coriander seeds, culantro seeds, cumin, dill seeds, dried balm leaves, dried basil leaves, dried chervil leaves, dried clary leaves, dried coriander leaves, dried costmary leaves, dried curry leaves, dried dillweed leaves, dried hyssop tops, dried lemongrass leaves, dried parsley leaves, dried rosemary leaves, dried rue leaves, dried sage leaves, dried summer savory leaves, dried sweet bay leaves, dried tansy leaves, dried tarragon leaves, dried thyme leaves, dried winter savory leaves, dried wintergreen leaves, dried woodruff leaves, dried wormwood leaves, dry borage leaves, edible burdock roots, edible burdock tops, edible canna, fenugreek seeds, field corn, Florence fennel seeds, fresh balm leaves, fresh basil leaves, fresh borage leaves, fresh clary leaves, fresh costmary leaves, fresh culantro leaves, fresh curry leaves, fresh dillweed leaves, fresh hyssop tops, fresh lemongrass leaves, fresh rosemary leaves, fresh rue leaves, fresh sage leaves, fresh summer savory leaves, fresh sweet bay leaves, fresh tansy leaves, fresh tarragon leaves, fresh thyme leaves, fresh winter savory leaves, fresh wintergreen

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			leaves, fresh woodruff leaves, fresh wormwood leaves, garden beet roots, garden beet tops, garlic, ginger roots, ginseng roots, grains of paradise, great headed garlic, horehound leaves, horseradish roots, Jerusalem artichokes, juniper berry, lavender, leeks, lerens, lovage leaves, lovage seeds, mace, marjoram, mustard seeds, ¹ nasturtium, nutmeg, oats, oriental radish roots, oriental radish tops, parsnip roots, pearl millet, pennyroyal leaves, popcorn grain, poppy seeds, potato onions, proso millet, radish roots, radish tops, rice, rutabaga roots, rutabaga tops, rye, saffron, salsify roots, shallots, skirret roots, sorghum Spanish salsify roots, sugar beet roots, sweet corn kernels plus cob with husks removed, sweet potato roots, tanier corm, tanier leaves, taro corm, taro leaves, teosinte, tree onion tops, triticale, true yam tubers, turmeric roots, turnip roots, turnip-rooted chervil roots, turnip-rooted chervil tops, turnip-rooted parsley roots, vanilla, Welsh onion tops, wheat, white pepper, wild rice, yam bean roots
	0.01		Amaranth, arugula, balsam apples, balsam pears, bell peppers, bok choy Chinese cabbages, broccoli, broccoli raab, Brussels sprouts, cantaloupes, cardoon, cauliflower, celery, celtuce, chayote fruit, Chinese broccoli, Chinese celery, Chinese cucumbers, Chinese mustard cabbages, Chinese waxgourds, citron melons, collards, corn salad, cucumbers, dandelion leaves, dock, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			rice beans, dry southern peas, dry soybeans, dry tepary beans, dry urd beans, edible gourds (other than those listed in this item), edible leaved chrysanthemum, edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans, eggplants, endives, fresh chervil leaves, fresh coriander leaves, fresh Florence fennel leaves and stocks, fresh parsley leaves, garden cress, garden purslane, garden chrysanthemum, grain lupin, groundcherries, head lettuce, kale, kohlrabi, leaf lettuce, meat of poultry, muskmelons (other than those listed in this item), mustard spinach, Napa Chinese cabbages, New Zealand spinach, non-bell peppers, orach leaves, peanuts, pepinos, pepper hybrids, pumpkins, radicchio, rape greens, rhubarb, spinach, succulent shelled blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas, summer squash, Swiss chard, tomatillos, tomatoes, upland cress, vine spinach, watermelons, West Indian gherkins, winter purslane, winter squash

¹ Existing MRL of 0.05 ppm for fludioxonil on "mustard" is replaced by the MRLs established herein for "mustard greens" (8.0 ppm) and "mustard seeds" (0.02 ppm).

1.13 Imidacloprid

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Imidacloprid	1-[(6-chloro-3-pyridinyl)methyl]-4,5-dihydro- <i>N</i> -nitro-1 <i>H</i> -imidazol-2- amine, including metabolites containing the 6-chloropicolyl moiety	0.5	Balsam apples, balsam pears, cantaloupes, chayote fruit, Chinese cucumbers, Chinese waxgourds, citron melons, edible gourds (other than those listed in this item), muskmelons (other than those listed in this item), pumpkins, summer squash, watermelons, West Indian gherkins, winter squash

1.14 Lambda-cyhalothrin

- Note:** 1) The common chemical name is changed from cyhalothrin-lambda to lambda-cyhalothrin in order to comply with international nomenclature conventions. In addition, the chemical name of the substance is revised as indicated below and lambda-cyhalothrin's epimer has been added to the residue definition. These revisions were previously consulted upon via publication in the *Canada Gazette*, Part I (Schedule 1443, 09 April 2005).
- 2) PMRL2006-01 included an MRL of 0.1 ppm on "onions." This generic crop descriptor has been replaced by commodities found in the bulb vegetable crop group.
- 3) Comments received in response to PMRL2006-01 regarding stone fruit MRLs led to a re-examination of the supporting Canadian crop field trial data and the removal of stone fruit commodities from the MRLs to be established as a result of this action as indicated in Appendix I, Section 1.1.

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Lambda-cyhalothrin	(<i>S</i>)- α -cyano-3-phenoxybenzyl	0.5	Canola oil
	(<i>Z</i>)-(1 <i>R</i> , 3 <i>R</i>)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropane carboxylate	0.3	Rapeseed (canola)
	and (<i>R</i>)- α -cyano-3-phenoxybenzyl	0.1	Chinese onions, dry bulb onions, garlic, great-headed garlic, green onions, leeks, potato onions, shallots, tree onion tops, Welsh onion tops
	(<i>Z</i>)-(1 <i>S</i> , 3 <i>S</i>)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropane carboxylate, including the epimer, in a 1:1 mixture, (<i>R</i>)- α -cyano-3-phenoxybenzyl		
	(<i>Z</i>)-(1 <i>R</i> , 3 <i>R</i>)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropane carboxylate and (<i>S</i>)- α -cyano-3-phenoxybenzyl	0.07	Apples
	(<i>Z</i>)-(1 <i>S</i> , 3 <i>S</i>)-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropane carboxylate	0.03	Wheat
		0.02	Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry soybeans, dry tepary beans, dry urd beans, edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			beans, edible-podded yardlong beans, grain lupin, succulent shelled blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas
		0.01	Barley, Brussels sprouts, cauliflower, mustard seeds, pears, potatoes, strawberries

1.15 Metalaxyl

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Metalaxyl	<i>N</i> -(2,6-dimethylphenyl)- <i>N</i> -(methoxyacetyl)-DL-alanine methyl ester, including metabolites that can be converted to the 2,6-dimethylaniline moiety, each expressed as metalaxyl equivalents	8.0	Hops (dried)
		0.7	Kidney of cattle, goats, hogs, horses, sheep and poultry
		0.3	Liver of cattle, goats, hogs, horses, sheep and poultry
		0.1	Apples, rapeseed (canola), sunflower seeds, mustard seeds
		0.05	Buckwheat; dry chickpeas; dry lentils; eggs; fat, meat and meat byproducts (except kidney and liver) of cattle, goat, hogs, horses, sheep and poultry; field corn; oats; pearl millet; popcorn grain; proso millet; rice; rye; sorghum; sweet corn kernels plus cob with husks removed; teosinte; triticale; wild rice

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.01	Milk

1.16 Myclobutanil

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Myclobutanil	α -butyl- α -(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile, including the metabolites α -(3-hydroxybutyl)- α -(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile and α -(butyl-3-one)- α -(4-chlorophenyl)-1H-1,2,4-triazole-1-propanenitrile	8.0	Prune plums
		3.0	Currants
		2.0	Plums
		1.4	Apricots
		1.2	Blackberries, loganberries, raspberries
		1	Tomato paste
		0.5	Mayhaws, tomato purée
		0.3	Tomatoes
		0.1	Almonds
		0.07	Saskatoon berries (juneberries)
		0.02	Asparagus

1.17 Propamocarb

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Propamocarb hydrochloride	propyl [3-(dimethylamino) propyl]carbamate hydrochloride, including the metabolites propyl [3-(dimethylamino)propyl] carbamate N3-oxide, 3-[3-(dimethylamino) propyl]-4-hydroxy-4-methyl-2-oxazolidine, 2-hydroxypropyl [3-(dimethylamino)propyl] carbamate and <i>N</i> -β-D-glucopyranuronosyl- <i>N</i> , <i>N</i> -dimethyl-3-[(propoxycarbonyl)amino]-1-propanaminium inner salt	0.35	Liver of cattle, goats, hogs, horses and sheep
		0.25	Fat, meat and meat byproducts (except liver) of cattle, goats, hogs, horses and sheep
		0.05	Milk

1.18 Propiconazole

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Propiconazole	1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1 <i>H</i> -1,2,4-triazole, including all metabolites containing the 2,4-dichlorophenyl-1-methyl substituted moiety	0.7	Blackberries, blueberries, ¹ currants, elderberries, gooseberries, huckleberries, loganberries, raspberries
		0.05	Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry kidney beans, dry lablab beans, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pink beans, dry pinto beans, dry rice beans, dry tepary beans, dry urd beans

¹ Existing MRLs for blueberries and dried blueberries amended from 0.02 ppm and 0.15 ppm, respectively, to 0.7 ppm.

1.19 Pyridaben

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Pyridaben	4-chloro-2-(1,1-dimethylthyl)-5-[[[4-(1,1-dimethylethyl)phenyl]methyl]thio]-3(2 <i>H</i>)-pyridazinone	1.3	Sweet cherries, tart cherries

1.20 Pyrimethanil

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Pyrimethanil	4,6-dimethyl- <i>N</i> -phenyl-2-pyridinamine	150	Citrus oil
		10	Calamondins, citrus citron, citrus hybrids, grapefruits, kumquats, lemons, limes, oranges, pummelos, satsuma mandarins, tangerines
		3.0	Apples, apricots, crabapples, loquats, mayhaws, nectarines, oriental pears, peaches, pears, plumcots, plums, prune plums, quinces
		2.5	Strawberries
		2.0	Green onions
		0.5	Tomatoes
		0.1	Dry bulb onions
		0.05	Arracacha, arrowroot, cassava roots, chayote roots, Chinese artichokes, chufa, edible canna, ginger roots, Jerusalem artichokes, lerens, potatoes, sweet potato roots, tanier corm, taro corm, true yam tuber, turmeric roots, yam bean roots
		0.15	Meat byproducts (except liver) of cattle, goats, hogs, horses and sheep
	4,6-dimethyl- <i>N</i> -phenyl-2-pyridinamine, including the metabolite phenol, 4-[(4,6-dimethyl-2-pyrimidinyl)amino]	0.1	Fat, liver and meat of cattle, goats, hogs, horses and sheep

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
	4,6-dimethyl- <i>N</i> -phenyl-2-pyridinamine, including the metabolite 5-pyrimidinol,4,6-dimethyl-2-(phenylamino)	0.02	Milk

1.21 Quizalofop-ethyl

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Quizalofop-ethyl	ethyl (<i>RS</i>) 2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propionate, including the acid metabolites of (<i>RS</i>)2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propanoic acid, all expressed as quizalofop-ethyl	0.15	Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry kidney beans, dry lablab beans, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pink beans, dry pinto beans, dry rice beans, dry tepary beans, dry urd beans
		0.1	Rutabaga roots
		0.05	Dry chickpeas, edible-podded jackbeans, edible-podded moth beans, edible-podded runner beans, edible-podded snap beans, edible-podded soybeans, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans

1.22 S-Metolachlor

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
S-metolachlor	2-chloro- <i>N</i> -(2-ethyl-6-methylphenyl)- <i>N</i> -[(1 <i>S</i>)-2-methoxy-1-methylethyl]acetamide and 2-chloro- <i>N</i> -(2-ethyl-6-methylphenyl)- <i>N</i> -[(1 <i>R</i>)-2-methoxy-1-methylethyl]acetamide, including the metabolites 2-[(2-ethyl-6-methylphenyl)amino]-1-propanol and 4-(2-ethyl-6-methylphenyl)-2-hydroxy-5-methyl-3-morpholinone	0.08	Bell peppers

1.23 Spinosad

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Spinosad	(2 <i>R</i> ,3 <i>aS</i> ,5 <i>aR</i> ,5 <i>bS</i> ,9 <i>S</i> ,13 <i>S</i> ,14 <i>R</i> ,16 <i>aS</i> ,16 <i>bR</i>)-2-(6-deoxy-2,3,4-tri- <i>O</i> -methyl- α -L-mannopyranosyloxy)-13-[[<i>(2R,5S,6R)</i>]-5-(dimethylamino)-tetrahydro-6-methyl-2 <i>H</i> -pyran-2yl]oxy]-9-ethyl-2,3,3 <i>a</i> ,5 <i>a</i> ,5 <i>b</i> ,6,9,10,11,12,13,14,16 <i>a</i> ,16 <i>b</i> -tetradecahydro-14-methyl-1 <i>H</i> -as-indaceno[3,2- <i>d</i>]oxacyclododecin-7,15-dione (Spinosyn A)	17	Milk fat
		7.0	Amaranth, arugula, bok choy Chinese cabbages, broccoli raab, cardoon, celery, celtuce, Chinese celery, collards, corn salad, dandelion leaves, dock, edible leaved chrysanthemum, endives, fresh chervil leaves, fresh Florence fennel leaves and stalks, fresh parsley leaves, garden cress, garden purslane, garland chrysanthemum, head lettuce, kale, leaf lettuce, mustard greens, mustard spinach, New Zealand spinach, orach leaves, radicchio, rape greens, rhubarb, spinach, Swiss chard, upland cress, vine spinach, winter purslane
	and		
	(2 <i>S</i> ,3 <i>aR</i> ,5 <i>aR</i> ,5 <i>bS</i> ,9 <i>S</i> ,13 <i>S</i> ,14 <i>R</i> ,16 <i>aS</i> ,16 <i>bR</i>)-2-(6-deoxy-2,3,4-tri- <i>O</i> -methyl- α -L-mannopyranosyloxy)-13-[[<i>(2R,5S,6R)</i>]-5-(dimethylamino)-tetrahydro-6-methyl-2 <i>H</i> -pyran-2yl]oxy]-9-ethyl-2,3,3 <i>a</i> ,5 <i>a</i> ,5 <i>b</i> ,6,9,10,11,12,13,14,16 <i>a</i> ,16 <i>b</i> -tetradecahydro-4,14-dimethyl-1 <i>H</i> -as-indaceno[3,2- <i>d</i>]oxacyclododecin-7,15-dione (Spinosyn D)	5.0	Fat of cattle, goats, hogs, horses and sheep
		3.0	Citrus oil
		2.0	Broccoli, Brussels sprouts, cabbages, cauliflower, Chinese broccoli, Chinese mustard cabbages, kohlrabi, Napa Chinese cabbages
		1.5	Barley, buckwheat, field corn, oats, pearl millet, popcorn grain, proso millet, rice, rye, sorghum, sweet corn kernels plus cob with husks removed, teosinte, triticale, wheat, wild rice
		1.0	Grape juice; meat byproducts of cattle, goats, hogs, horses and sheep
		0.7	Raisins, strawberries

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.5	Blackberries, blueberries, currants, elderberries, gooseberries, huckleberries, loganberries, milk, raspberries
		0.4	Grapes
		0.3	Balsam apples, balsam pears, calamondins, cantaloupes, chayote fruit, Chinese cucumbers, Chinese waxgourds, citron melons, citrus citron, citrus hybrids, cucumbers, edible gourds (other than those listed in this item), edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans, grapefruits, kumquats, lemons, limes, muskmelons (other than those listed in this item), oranges, pummelos, pumpkins, satsuma mandarins, summer squash, tangerines, watermelons, West Indian gherkins, winter squash
		0.2	Apricots; bell peppers; chokecherries; eggplants; globe artichokes; groundcherries; meat of cattle, goats, hogs, horses and sheep; nectarines; non-bell peppers; peaches; pepinos; pepper hybrids; plumcots; plums; prune plums; sweet cherries; tart cherries; tomatillos; tomatoes

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.1	Black salsify roots, carrot roots, celeriac roots, chicory roots, crabapples, edible burdock roots, garden beet roots, ginseng roots, horseradish roots, loquats, mayhaws, oriental pears, oriental radish roots, parsnip roots, pears, quinces, radish roots, rutabaga roots, salsify roots, skirret roots, Spanish salsify roots, sugar beet roots, turnip-rooted chervil roots, turnip-rooted parsley roots, turnip roots
		0.02	Arracacha, arrowroot, cassava roots, chayote roots, Chinese artichokes, chufa, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry soybeans, dry tepary beans, dry urd beans, edible canna, ginger roots, grain lupin, Jerusalem artichokes, lerens, succulent shelled blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas, sweet potato roots, tanier corms, taro corms, true yam tubers, turmeric roots, yam bean roots
		0.01	Cranberries

1.24 Thiabendazole

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Thiabendazole	2-(4-thiazolyl) benzimidazole	10	Potatoes ¹

¹ Existing MRL for potatoes amended from 4.0 ppm to 10 ppm.

1.25 Thiamethoxam

Note: All food commodities were removed from PMRL2006-01 as MRLs at 0.02 ppm are not required, given that they are covered under the existing 0.02 ppm MRL already established for "All food crops."

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Thiamethoxam	3-[(2-chloro-5-thiazolyl) methyl tetrahydro-5-methyl- <i>N</i> -nitro-4 <i>H</i> -1,3,5-oxadiazin-4-imine, including the metabolite (<i>E</i>)- <i>N</i> -[(2-chloro-5-thiazolyl) methyl]- <i>N'</i> -methyl- <i>N''</i> -nitro-guanidine	0.02	—

2.0 MRLs for Chemicals Currently Without Established MRLs

2.1 Aminopyralid

Note: In January 2007, the PMRA published Regulatory Note, *Aminopyralid* ([REG2007-01](#)), which identified the MRLs to be established in Section 4.10. These included all MRLs proposed in PMRL2006-01 in addition to MRLs for ruminant fat commodities that were inadvertently omitted from the PMRL and have now been added below.

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Aminopyralid	4-amino-3,6-dichloro-2-pyridinecarboxylic acid	0.3	Kidney of cattle, goats, horses and sheep
		0.03	Milk
		0.02	Fat, meat and meat byproducts (except kidney) of cattle, goats, horses and sheep
	4-amino-3,6-dichloro-2-pyridinecarboxylic acid (free and conjugated)	0.1	Wheat bran
		0.04	Wheat

2.2 Bifenazate

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Bifenazate	1-methylethyl 2-(4-methoxy[1,1'-biphenyl]-3-yl)hydrazinecarboxylate, including the metabolite diazenecarboxylic acid, 2-(4-methoxy-[1,1'-biphenyl]-3-yl), 1-methylethyl ester	1.2	Raisins
		1.1	Bell peppers
		1.0	Grapes
		0.6	Apples
		0.35	Tomatoes
		0.25	Cucumbers
		0.01	Fat of cattle, goats, hogs, horses and sheep
	1-methylethyl 2-(4-methoxy[1,1'-biphenyl]-3-yl)hydrazinecarboxylate, including the metabolites [diazenecarboxylic acid, 2-(4-methoxy-[1,1'-biphenyl]-3-yl), 1-methylethyl ester], [1,1'-biphenyl]-4-ol and [1,1'-biphenyl]-4-ol sulfate	0.02	Meat and meat byproducts of cattle, goats, hogs, horses and sheep; milk

2.3 Boscalid

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Boscalid	2-chloro- <i>N</i> -(4'-chloro[1,1'-biphenyl]-2-yl)-3-pyridinecarboxamide	30	Peppermint tops, spearmint tops
		18	Bok choy Chinese cabbages, broccoli raab, collards, kale, mustard greens, mustard spinach, rape greens
		11	Leaf lettuce
		8.5	Raisins
		6.5	Head lettuce

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		5.0	Canola oil
		3.5	Blackberries, blueberries, currants, elderberries, flaxseed, gooseberries, grapes, huckleberries, loganberries, mustard seeds, rapeseed (canola), raspberries
		3.0	Broccoli, Brussels sprouts, cabbages, cauliflower, Chinese broccoli, Chinese mustard cabbages, Chinese onions dry bulb onions, garlic, great-headed garlic, green onions, kohlrabi, leeks, Napa Chinese cabbages, potato onions,, shallots, tree onion tops, Welsh onion tops
		2.5	Dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, grain lupin
		1.7	Apricots, nectarines, peaches, plumcots, plums, prune plums, sweet cherries, tart cherries
		1.6	Edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		1.5	Balsam apples, balsam pears, cantaloupes, chayote fruit, Chinese waxgourds, citron melons, edible gourds (other than those listed in this item), muskmelons (other than those listed in this item), pumpkins, summer squash, watermelons, West Indian gherkins, winter squash
		1.2	Strawberries
		1.0	Amaranth, arugula, bell peppers, black salsify tops, cardoon, cassava leaves, celeriac tops, celery, celtuce, chicory tops, Chinese celery, corn salad, dandelion leaves, dock, edible burdock tops, edible leaved chrysanthemum, eggplants, endives, fresh chervil leaves, fresh Florence fennel leaves and stalks, fresh parsley leaves, garden beet roots, garden beet tops, garden cress, garden purslane, garland chrysanthemum, groundcherries, New Zealand spinach, non-bell peppers, orach leaves, oriental radish tops, pepinos, pepper hybrids, radicchio, radish roots, radish tops, rhubarb, rutabaga tops, spinach, sugar beet roots, Swiss chard, tanier leaves, taro leaves, tomatillos, tomatoes, turnip roots, turnip tops, turnip-rooted chervil tops, upland cress, vine spinach, winter purslane

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.7	Almonds, beechnuts, black salsify roots, black walnuts, Brazil nuts, butternuts, carrot roots, cashew nuts, celeriac roots, chestnuts, chicory roots, chinquapins, edible burdock roots, English walnuts, filberts, ginseng roots, hickory nuts, horseradish roots, macadamia nuts, oriental radish roots, parsnip roots, pecans, pistachios, rutabaga roots, salsify roots, skirret roots, Spanish salsify roots, turnip-rooted chervil roots, turnip-rooted parsley roots
		0.6	Safflower seeds, succulent shelled blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas, sunflower seeds
		0.2	Barley, buckwheat, Chinese cucumbers, cucumbers, field corn, oats, pearl millet, popcorn grain, proso millet, rice, rye, sorghum, sweet corn kernel plus cob with husks removed, teosinte, triticale, wheat, wild rice
		0.15	Peanut oil
		0.1	Dry soybeans
		0.05	Arracacha, arrowroot, cassava roots, chayote roots, Chinese artichokes, chufa, edible canna, ginger roots, Jerusalem artichokes, lerens, peanuts, potatoes, sweet potato roots, tanier corm, taro corm, true yam tuber, turmeric roots, undelinted cotton seeds, yam bean roots

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
	2-chloro- <i>N</i> -(4'-chloro[1,1'-biphenyl]-2-yl)-3-pyridinecarboxamide, including the metabolites	0.35	Meat byproducts of cattle, goats, hogs, horses and sheep
	2-chloro- <i>N</i> -(4'-chloro-5-hydroxy-[1,1'-biphenyl]-2-yl)-3-pyridinecarboxamide and the glucuronic acid conjugate of 2-chloro- <i>N</i> -(4'-chloro-5-hydroxy-biphenyl-2-yl)nicotinamide	0.3	Fat of cattle, goats, hogs, horses and sheep
		0.1	Meat of cattle, goats, hogs, horses and sheep; meat byproducts of poultry; milk
		0.05	Fat and meat of poultry
		0.02	Eggs

2.4 Chloropicrin

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Chloropicrin	trichloronitromethane	0.03	Amaranth, apples, apricots, arracacha, arrowroot, arugula, asparagus, balsam apples, balsam pears, bell peppers, black salsify roots, blackberries, blueberries, bok choy Chinese cabbages, broccoli, broccoli raab, Brussels sprouts, cabbages, cantaloupes, cardoon, carrot roots, cassava roots, cauliflower, celeriac roots, celery, celtuce, chayote fruit, chayote roots, chicory roots, Chinese artichokes, Chinese broccoli, Chinese celery, Chinese cucumbers, Chinese mustard cabbages, Chinese onions, Chinese waxgourds, chufa, citron melons, collards, corn salad, crabapples, cucumbers, currants, dandelion leaves, dock, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry bulb onions, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans,

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry soybeans, dry tepary beans, dry urd beans, edible burdock roots, edible canna, edible gourds (other than those listed in this item), edible leaved chrysanthemum, edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans, eggplants, elderberries, endives, fresh chervil leaves, fresh Florence fennel leaves and stalks, fresh parsley leaves, garden beet roots, garden cress, garden purslane, garland chrysanthemum, garlic, leaf lettuce, leeks, lerens, loganberries, loquats, mayhaws, muskmelons (other than those listed in this item), mustard greens, mustard spinach, Napa Chinese cabbages, nectarines, New Zealand spinach, non-bell peppers, orach leaves, oriental pears, nectarines, oriental radish roots, parsnip roots, peaches, pears, pepinos, pepper hybrids, plumcots, plums, potato onions, potatoes, prune plums, pumpkins, quinces, radicchio, radish roots, rape greens, raspberries, rhubarb, rutabaga roots, salsify roots, shallots, skirret roots, Spanish salsify roots, spinach, succulent shelled

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas, sugar beet roots, summer squash, sweet cherries, sweet potato roots, Swiss chard, tanier corm, taro corm, tart cherries, tomatillos, tomatoes, tree onion tops, true yam tubers, turmeric roots, turnip roots, turnip-rooted chervil roots, turnip-rooted parsley roots, upland cress, vine spinach, watermelons, Welsh onion tops, West Indian gherkins, winter purslane, winter squash, yam bean roots
		0.01	Strawberries

2.5 Cloquintocet-mexyl

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Cloquintocet-mexyl	1-methylhexyl[(5-chloro-8-quinolinyloxy)acetate, including the metabolite [(5-chloro-8-quinolinyloxy)acetic acid]	0.01	Barley, wheat

2.6 Ethametsulfuron-methyl

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Ethametsulfuron-methyl	methyl 2-[[[4-ethoxy-6-(methylamino)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl] benzoate	0.05	Mustard seeds
		0.02	Rapeseed (canola), sunflower seeds

2.7 Flufenacet

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Flufenacet	<i>N</i> -(4-fluorophenyl)- <i>N</i> -(1-methylethyl)-2-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]oxy]acetamide	0.1	Dry soybeans
		0.05	Eggs; field corn; meat and meat byproducts of cattle, goats, hogs, horses, poultry and sheep
		0.01	Milk

2.8 Pinoxaden

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Pinoxaden	2,2-dimethyl-propanoic acid 8-(2,6-diethyl-4-methylphenyl)-1,2,4,5-tetrahydro-7-oxo-7H-pyrazolo[1,2-d][1,4,5]oxadiazepin-9-yl ester, including the metabolites	3.0	Wheat bran
	8-(2,6-diethyl-4-methylphenyl)-9-hydroxy-1,2,4,5-tetrahydro-pyrazolo [1,2-d][1,4,5]oxadiazepin-7-one, 8-(2,6-diethyl-4-hydroxymethyl-phenyl)-9-hydroxy-1,2,4,5-tetrahydro-pyrazolo[1,2-d][1,4,5]oxadiazepin-7-one and 3,5-diethyl-4-(9-hydroxy-7-oxo-1,2,4,5-tetrahydro-7H-pyrazolo[1,2-d][1,4,5]oxadiazepin-8-yl)-benzoic acid	1.6	Barley bran
		1.3	Wheat
		0.9	Barley
		0.06	Eggs; fat, meat and meat byproducts of poultry
		0.04	Fat, meat and meat byproducts of cattle, goats, hogs, horses and sheep
		0.02	Milk

2.9 Prohexadione Calcium

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Prohexadione calcium	calcium 3,5-dioxo-4-(1-oxopropyl)cyclohexanecarboxylate	3.0	Apples
		0.05	Fat, meat and meat byproducts of cattle, goats, hogs, horses and sheep
		0.01	Milk

2.10 Prothioconazole

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Prothioconazole	2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3H-1,2,4-triazole-3-thione	0.9	Dry chickpeas, dry lentils
		0.35	Barley
		0.2	Meat byproducts of cattle, goats, horses and sheep
		0.15	Rapeseed (canola), mustard seeds
		0.1	Fat of cattle, goats, horses and sheep
		0.07	Wheat
		0.05	Meat byproducts of hogs
		0.02	Liver of poultry; meat of cattle, goats, horses and sheep; milk

2.11 Pymetrozine

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Pymetrozine	4,5-dihydro-6-methyl-4-[(3-pyridinylmethylene)amino]-1,2,4-triazin-3(2H)-one	6.0	Hops
		0.6	Amaranth, arugula, cardoon, celery, celtuce, Chinese celery, corn salad, dandelion leaves, dock, edible leaved chrysanthemum, endives, fresh chervil leaves, fresh Florence fennel leaves and stalks, fresh parsley leaves, garden cress, garden purslane, garland chrysanthemum, head lettuce, leaf lettuce, New Zealand spinach, orach leaves, radicchio, rhubarb, spinach, Swiss chard, upland cress, vine spinach, winter purslane
		0.5	Broccoli, Brussels sprouts, cabbages, cauliflower, Chinese broccoli, Chinese mustard cabbages, kohlrabi, Napa Chinese cabbages
		0.25	Bok choy Chinese cabbages, broccoli raab, collards, kale, mustard greens, mustard spinach, rape greens
		0.2	Bell peppers, eggplants, groundcherries, lemons, mandarins, non-bell peppers, oranges, pepinos, pepper hybrids, tomatillos, tomatoes
		0.1	Balsam apples, balsam pears, cantaloupes, chayote fruit, Chinese cucumbers, Chinese wax gourds, citron melons, cucumbers, edible gourds (other than those listed in this item), muskmelons (other than those listed in this item), pumpkins, summer squash, watermelon, West Indian gherkins, winter squash

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.02	Arracacha, arrowroot, cassava roots, chayote roots, Chinese artichokes, chufa, edible canna, ginger roots, Jerusalem artichokes, lerens, pecans, potatoes, sweet potato roots, tanager corms, taro corms, true yam tuber, turmeric roots, yam bean roots

2.12 Pyraclostrobin

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Pyraclostrobin	methyl [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl] phenyl] methoxycarbamate, including the metabolite [2-[[[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxy]methyl]phenyl] carbamate	7.0	Raisins
		4.0	Citrus oil
		2.0	Grapes
		1.0	Bell peppers, blackberries, blueberries, currants, eggplants, elderberries, gooseberries, groundcherries, huckleberries, loganberries, non-bell peppers, pepinos, pepper hybrids, raspberries, tomatillos, tomatoes
		0.7	Apricots, calamondins, citrus citron, citrus hybrids, grapefruits, kumquats, lemons, limes, nectarines, oranges, peaches, plumcots, plums, prune plums, pummelos, satsuma mandarins, sweet cherries, tangerines, tart cherries
		0.65	Chinese onions, dry bulb onions, garlic, great-headed garlic, green onions, leeks, potato onions, shallots, tree onion tops, Welsh onion tops

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.5	Balsam apples, balsam pears, cantaloupes, chayote fruit, Chinese cucumbers, Chinese waxgourds, citron melons, cucumbers, dry adzuki beans, dry beans, dry blackeyed peas, dry broad beans, dry catjang seeds, dry chickpeas, dry field peas, dry guar seeds, dry kidney beans, dry lablab beans, dry lentils, dry lima beans, dry moth beans, dry mung beans, dry navy beans, dry pigeon peas, dry pink beans, dry pinto beans, dry rice beans, dry southern peas, dry tepary beans, dry urd beans, edible gourds (other than those listed in this item), grain lupin, muskmelons (other than those listed in this item), pistachios, pumpkins, summer squash, watermelons, West Indian gherkins, winter squash

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.4	Barley, black salsify roots, carrot roots, celeriac roots, chicory roots, edible burdock roots, edible-podded dwarf peas, edible-podded jackbeans, edible-podded moth beans, edible-podded peas, edible-podded pigeon peas, edible-podded runner beans, edible-podded snap beans, edible-podded snow peas, edible-podded soybeans, edible-podded sugar snap peas, edible-podded swordbeans, edible-podded wax beans, edible-podded yardlong beans, garden beet roots, ginseng roots, horseradish roots, oriental radish roots, parsnip roots, radish roots, rutabaga roots, salsify roots, skirret roots, Spanish salsify roots, strawberries, turnip-rooted chervil roots, turnip-rooted parsley roots, turnip roots
		0.35	Succulent shelled blackeyed peas, succulent shelled broad beans, succulent shelled English peas, succulent shelled garden peas, succulent shelled green peas, succulent shelled lima beans, succulent shelled peas, succulent shelled pigeon peas, succulent shelled southern peas
		0.2	Wheat
		0.15	Sugar beet roots
		0.1	Peanut oil
		0.05	Peanuts
		0.04	Almonds, arracacha, arrowroot, bananas, beechnuts, black walnuts, Brazil nuts, butternuts, cashew nuts, cassava roots, chayote roots,

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
			chestnuts, Chinese artichokes, chinquapins, chufa, dry soybeans, edible canna, English walnuts, field corn, filberts, ginger roots, hickory nuts, Jerusalem artichokes, lerens, macadamia nuts, pecans, popcorn grain, potatoes, rye, sweet corn kernels plus cob with husks removed, sweet potato roots, tanier corm, taro corm, turmeric roots, true yam tubers, yam bean roots
	methyl [2-[[[1-(4-chlorophenyl)-1 <i>H</i> -pyrazol-3-yl]oxy] methyl]phenyl] methoxycarbamate,	1.5	Liver of cattle, goats, hogs, horses and sheep
	including the metabolites convertible to 1-(4-chlorophenyl)-1 <i>H</i> -pyrazol-3-ol and 1-(4-chloro-2-hydroxyphenyl)-1 <i>H</i> -pyrazol-3-ol	0.2	Meat byproducts (except liver) of cattle, goats, hogs, horses and sheep
		0.1	Fat and meat of cattle, goats, hogs, horses and sheep; milk

2.13 Quinoxifen

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Quinoxifen	5,7-dichloro-4-(4-fluorophenoxy)quinoline	2.5	Hops
		0.5	Grapes
		0.3	Sweet cherries, tart cherries

2.14 Spirodiclofen

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Spirodiclofen	3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl 2,2-dimethylbutanoate	20	Citrus oil
		4.0	Raisins
		2.4	Grape juice
		2.0	Grapes
		1.0	Apricots, nectarines, peaches, plumcots, plums, prune plums, sweet cherries, tart cherries
		0.8	Apples, crabapples, loquats, mayhaws, oriental pears, pears, quinces
		0.6	Citrus juice
		0.5	Calamondins, citrus citron, citrus hybrids, grapefruits, kumquats, lemons, limes, oranges, pummelos, satsuma mandarins, tangerines
		0.1	Almonds, beechnuts, black walnuts, Brazil nuts, butternuts, cashew nuts, chestnuts, chinquapins, English walnuts, filberts, hickory nuts, macadamia nuts, pecans, pistachios
		0.1	Meat byproducts of cattle, goats, horses and sheep
	3-(2,4- dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl 2,2-dimethylbutanoate, including the metabolite 1-oxaspiro[4.5] dec-3-en-2-one, 3-(2,4-dichlorophenyl)-4-hydroxy-(9CI)	0.03	Milk fat
		0.02	Fat and meat of cattle, goats, horses and sheep
		0.01	Milk

2.15 Sulfuryl fluoride

Note: Comments received in response to PMRL2006-01 regarding tree nut MRLs led to a re-examination of the supporting fumigation trial data and the removal of almonds and walnuts from the MRLs to be established as a result of this action as indicated in Appendix I, Section 2.0.

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Sulfuryl fluoride	sulfuryl fluoride	3.0	Pecans
		0.3	Pistachios
		0.1	Wheat
		0.05	Dried figs
		0.03	Dried prune plums, field corn, rice
		0.01	Dates

2.16 Trifloxystrobin

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
Trifloxystrobin	methyl (α,E)- α -(methoxyimino)-2-[[[(E)-[1-[3-(trifluoromethyl)phenyl]ethylidene]amino]oxy]methyl]benzeneacetate, including the metabolite (α,E)- α -(methoxyimino)-2-[[[(E)-[1-[3-(trifluoromethyl)phenyl]ethylidene]amino]oxy]methyl]benzene acetic acid, expressed as trifloxystrobin	5.0	Raisins
		2.0	Grapes
		0.5	Apples, balsam apples, balsam pears, bell peppers, cantaloupes, chayote fruit, Chinese cucumbers, Chinese waxgourds, citron melons, crabapples, cucumbers, edible gourds (other than those listed in this item), eggplants, groundcherries, loquats, mayhaws, muskmelons (other than those listed in this item), non-bell peppers, oriental pears, pears, pepinos, pepper hybrids, pumpkins, quinces, summer squash, tomatillos, tomatoes, watermelons, West Indian gherkins, winter squash
		0.1	Sugar beet roots

Common Chemical Name	Chemical Name of Substance	MRL (ppm)	Food Commodity
		0.05	Barley, oats, wheat
		0.04	Almonds; eggs; fat, meat and meat byproducts of cattle, goats, hogs, horses, poultry and sheep; potatoes
		0.02	Milk

Appendix I Comments and Responses

This appendix summarizes the comments received in response to PMRL2006-01 and provides the corresponding PMRA responses.

Five sets of comments were received in response to this document. The following table provides a summary of the source of comments.

Responses by Organization

Industry		Association			Government		
CAN	FRGN	PROV	CAN	FRGN	PROV	FED	FRGN
2	0	0	0	2	0	0	1

CAN - Canadian

FRGN - Foreign

PROV - Provincial

FED - Federal

1.0 Comments Regarding MRLs for Lambda-cyhalothrin

Comments regarding MRLs proposed in Canada for residues of lambda-cyhalothrin in or on various fruit commodities were raised by four of the five respondents.

1.1 Stone Fruits

An American state agricultural trade association and the United States Department of Agriculture (USDA) were concerned that stone fruit¹ exports to Canada, its top export market (accounting for 10% of the state's production), may be negatively impacted given the differing residue limits for stone fruits in the two countries. While recognizing the need to maintain and promote consumer protection, the association believes that accepting American tolerances equally protects the Canadian consumer. The USDA requested information regarding the lambda-cyhalothrin use rates and patterns used to develop the proposed Canadian stone fruit MRLs.

The state agricultural trade association recognizes that the use pattern, including rates, differs between Canada and the United States but remains concerned regarding trade issues. The association has contacted the registrant regarding the need to set higher Canadian import MRLs consistent with established American tolerances.

¹ Stone fruits (Crop Group 12) include apricots, nectarines, peaches, plumcots, plums, prune plums, sweet cherries and tart cherries.

The tolerance in the United States for lambda-cyhalothrin on stone fruits is 0.5 ppm while the trade association indicated that Canada was proposing an MRL for stone fruits of 0.07 ppm, which in fact only applied to nectarines and peaches (and not to cherries and plums). The following table compares proposed lambda-cyhalothrin Canadian MRLs and established American tolerances (as per 40 CFR 180.438) for stone fruit commodities.

Common Name	Canada		United States	
	Food Commodity	Proposed MRL (ppm)	Food Commodity	Tolerance (ppm)
Lambda-cyhalothrin	Cherries	0.08	Fruit, stone, group 12	0.5
	Nectarines	0.07		
	Peaches	0.07		
	Plums	0.01		

Response

There are several reasons for differences in MRLs. Lambda-cyhalothrin is an insecticide that has been registered in Canada for use on stone fruits since the late 1980s. The proposed MRLs are based specifically on crop field trials conducted in regions representative of Canadian growing conditions (i.e. climate and soil types) and according to the Canadian use pattern. In Canada, the accepted use pattern is based on the lowest effective rate (i.e. use of the minimum amount of product at the lowest frequency that achieves adequate pest control). As noted by the USDA and summarized in the following table, the Canadian use pattern for stone fruits is considerably different from the American use pattern in regards to the rate per application, frequency of application and preharvest intervals (PHIs). The PMRA has a policy to keep the use rate and frequency of pesticide use at a level that is commensurate with sustainable pest management. Specific details regarding the Canadian use pattern for cherries, peaches, nectarines and plums are available on the Matador 120EC and Warrior Insecticide labels (PCPA Registration Numbers 24984 and 26837, respectively).

Country	Trade Name	Crop(s)/ Crop Group	Application Rate (g a.i./ha)	Max. No. Applications per Season	Max. Seasonal Application Rate (g a.i./ha)	PHI (days)	Use Directions and Other Limitations
Canada	Warrior (PCPA Reg. No. 26837) Matador 120EC (PCPA Reg. No. 24984)	Cherries, peaches, nectarines, plums	12.5	3	37.5	7	Ground only. Allow a 7-day interval between applications.
United States	Warrior (USEPA Reg. No. 100-1112)	Stone fruits	22.4–44.8	Not specified	224	14	Apply with ground or air equipment.

The PMRA establishes crop group MRLs when a) the use pattern for all crops within a crop group are the same and b) if maximum residues for the representative crops are within a five-fold range. Further details regarding requirements for establishing crop group MRLs are found in Section 15.4 of the PMRA's *Residue Chemistry Guidelines* (DIR98-02).

Upon re-examination of the Canadian crop field trial data submitted to support the registration of Matador and Warrior for use on stone fruits, it was noted that the maximum residues of lambda-cyhalothrin on cherries and plums in trials conducted in Ontario during the 1988 growing season were 0.177 ppm and 0.110 ppm, respectively, when treated at 30 to 45 g a.i./ha/season and harvested seven days following the last of three applications (equivalent to 1.2-fold the approved use pattern).

Therefore, an MRL for these stone fruits should be proposed at 0.2 ppm, rather than at 0.08 ppm for cherries and 0.01 ppm for plums as proposed in PMRL2006-01. In addition, as this MRL is less than five times the supported 0.07 ppm MRL proposed for nectarines and peaches, an MRL of 0.2 ppm for the stone fruit crop group will be proposed and consulted on in a future Proposed Maximum Residue Limit document.

It should be noted that an application has recently been received to set MRLs for imported stone fruits. Upon completion of the review of food residue chemistry data, the PMRA will be in a better position to determine if the American tolerances for lambda-cyhalothrin can be adopted. The target completion date of this submission is early 2009.

The lambda-cyhalothrin MRLs proposed for stone fruits in PMRL2006-01 will not be established at this time.

1.2 Pome Fruits

An American state agricultural marketing board and the USDA raised concerns regarding MRLs proposed for lambda-cyhalothrin on pears and further questioned why the proposed MRLs in Canada for apples and pears differed significantly given that they are both commodities in the pome fruits² crop group. The Canadian market accounts for 10% of the state's fresh pear shipments and 50% of its total exports. The American state agricultural marketing board requested that the PMRA adopt a pear import MRL for lambda-cyhalothrin consistent with the United States Environmental Protection Agency's (USEPA's) tolerance of 0.3 ppm or at least re-establish the 0.1 ppm default MRL. Otherwise, the preharvest interval necessary for Canadian MRL compliance for imported pears may preclude the use of the pesticide altogether. The USDA has requested an explanation of the methods used in establishing the MRL on pears and the basis for proposing distinct MRLs for apples and pears rather than specifying a pome fruits crop group MRL. The failure to establish a crop group MRL was also questioned by a Canadian registrant.

The following table compares proposed lambda-cyhalothrin Canadian MRLs and established American tolerances for pome fruit commodities (as per 40 CFR 180.438).

² Pome fruits (Crop Group 11) include apples, crabapples, loquats, mayhaws, oriental pears, pears and quinces.

Common Name	Canada		United States	
	Food Commodity	Proposed MRL (ppm)	Food Commodity	Tolerance (ppm)
Lambda-cyhalothrin	Apples	0.07	Fruits, pome, group 11	0.3
	Pears	0.01		

Response

The ability to establish MRLs on a crop group basis requires a consistent use pattern for all food commodities within the group. For the labelled Canadian uses of lambda-cyhalothrin, there is a significant difference between both the maximum product application rate and the number of applications per year for apples and pears, thereby negating the ability to establish an MRL for the pome fruits crop group. The Canadian use patterns for apples and pears are compared to the American use pattern for pome fruits in the following table. However, specific details regarding the Canadian use pattern for apples and pears are available on the Matador 120EC and Warrior Insecticide labels (PCPA Registration Numbers 24984 and 26837, respectively).

Further details regarding requirements for establishing crop group MRLs are found in Section 15.4 of the PMRA's *Residue Chemistry Guidelines* (DIR98-02).

Comparison of Directions for Use in Canada and the United States							
Country	Trade Name	Food Commodity	Application Rate (g a.i./ha)	Max. No. Applications per Season	Max. Seasonal Application Rate (g a.i./ha)	PHI (days)	Use Directions
Canada	Warrior (PCPA Reg. No. 26837) Matador 120EC (PCPA Reg. No. 24984)	Apples	10.0–12.5	3	37.5	7	Ground only. Allow a 7-day interval between applications
		Pears	10.0	1	10.0	7	Ground only
United States	Warrior (USEPA Reg. No. 100-1112)	Pome fruits	22.4–44.8	Not specified	224	21	Apply with ground or air equipment.

Given the distinct use pattern and the more than five-fold variability in the resulting residues, individual MRLs of 0.07 ppm and 0.01 ppm, respectively, were proposed and remain valid as supported by corresponding residue trial data.

Therefore, the lambda-cyhalothrin MRLs proposed for apples and pears in PMRL2006-01 are not impacted and are established at 0.07 ppm and 0.01 ppm, respectively.

2.0 Comments Regarding MRLs for Sulfuryl Fluoride

The USDA challenged differing proposed MRLs for sulfuryl fluoride on tree nuts³ given it believes the same data were submitted to Canada, the United States and Codex to establish MRLs on the crop group. Trade concerns are the issue at hand as Canada is the fourth largest export market for California almonds after the European Union, Japan and India, and some 60% of California almond production is exported. The USDA has requested information describing the methods Canada used in setting the nut MRLs, which differ from the American and Codex values. In particular, it has requested information supporting the difference between the proposed MRLs for almonds (0.01 ppm) and walnuts (2.0 ppm). The USDA is under the understanding that residues measured in these nuts are similar.

The following table compares proposed Canadian MRLs, established American tolerances (as per 40 CFR 180.575) and Codex MRLs for tree nuts.

Common Name	Canada		United States		Codex	
	Food Commodity	Proposed MRL (ppm)	Food Commodity	Tolerance (ppm)	Food Commodity	MRL (ppm)
Sulfuryl fluoride	Pecans	3.0	Nut, tree, group 14, postharvest	3.0	Tree nuts	3.0
	Walnuts	2.0				
	Pistachios	0.3				
	Almonds	0.01				

Response

The main reason for the difference in MRLs/tolerances is the adoption of crop groupings, which has been more widely applied in the United States than in Canada. This results in the highest MRL in a crop being adopted for the entire group. However, as indicated for lambda-cyhalothrin and as found in Section 15.4 of the PMRA's *Residue Chemistry Guidelines* (DIR98-02), if the maximum residue level for a crop within a crop group is five-fold different from the other representative crops within the same crop group, separate MRLs must be established, as was the case for the proposed MRLs for sulfuryl fluoride on tree nuts.

After re-examination of the supporting fumigation trial data, maximum residues of sulfuryl fluoride in or on almonds was 0.04 ppm following a single maximum dosage of 1517–1539 mg•hr/L under normal atmospheric pressure (equivalent to the value on the American label) and an aeration period of one day. In addition, maximum residues of sulfuryl fluoride in or on walnuts was 0.64 ppm when treated with a single maximum dosage of

³ Tree nuts (Crop Group 14) include almonds, beechnuts, black walnuts, Brazil nuts, butternuts, cashew nuts, chestnuts, chinquapins, English walnuts, filberts, hickory nuts, macadamia nuts, pecans and pistachios.

183–218 mg•hr/L under vacuum (equivalent to the American label) and an aeration period of one day.

Therefore, the 0.01 ppm and 2.0 ppm MRLs proposed for almonds and walnuts, respectively, in PMRL2006-01 should be revised. MRLs of 0.04 ppm and 0.7 ppm will be proposed for consultation in a future Proposed Maximum Residue Limit document.

Although the MRLs/tolerances may be numerically different, there is no expectation that, if used according to the registered American label (1500 mg•hr/L under normal atmospheric pressure and 200 mg•hr/L under vacuum, one-day aeration period), the residues of sulfuryl fluoride will exceed the maximum levels reported in the trials, upon which the Canadian MRLs are established. Therefore, the differences in MRLs/tolerances should not result in real trade barriers.

The sulfuryl fluoride MRLs proposed for pecans and pistachios in PMRL2006-01 are not impacted and are established at 3.0 ppm and 0.3 ppm, respectively.

The sulfuryl fluoride MRLs proposed for almonds and walnuts in PMRL2006-01 will not be established at this time.

3.0 Comments Regarding MRLs for Fluazifop-butyl and Fluazifop-p-butyl

A Canadian registrant noted that the proposed MRL for the isomer fluazifop-p-butyl on grapes is listed under fluazifop-p-butyl rather than under the racemic fluazifop-butyl, as are all currently established MRLs. The registrant noted that there may be confusion because of the establishment of tolerances for both active ingredients.

It was also correctly noted that there are no longer any products registered in Canada containing the racemic fluazifop-butyl but only products containing the active isomer fluazifop-p-butyl. The registrant further claimed that the USEPA had migrated all existing tolerances for fluazifop-butyl to fluazifop-p-butyl and requested that Canada adopt a similar approach.

Response

The entry under fluazifop-p-butyl is in error, and the grape MRL should have been listed under Section 1 of PMRL2006-01 as an MRL for fluazifop-butyl. Given that the enforcement analytical method determines fluazifop acid and does not distinguish between isomers, all future MRLs will also be identified under fluazifop-butyl.

American tolerances are currently established for both fluazifop-butyl and fluazifop-p-butyl in accordance with 40 CFR 180.411.

4.0 Comments Regarding MRLs for Diquat

A Canadian registrant made comments regarding diquat MRLs, claiming that the MRLs proposed in PMRL2006-01 differed from those established in the United States, as a result of an April 2002 Tolerance Reassessment Decision (TRED), and requested that any MRLs established for diquat be harmonized with American tolerances.

Response

It should be noted that many of the proposed Canadian MRLs for diquat are consistent with tolerances established in the United States. The following represent the exceptions.

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)
<i>Brassica</i> Leafy Vegetables, Crop Group 5	0.02	0.05
Dry beans and peas	0.2	0.05
Soybean seeds	0.05	0.2

The MRLs proposed in PMRL2006-01 that differ from American tolerances remain valid as supported by corresponding residue trial data and are not impacted as a result of these comments. All diquat MRLs included in PMRL2006-01 are established as proposed.

5.0 General Comments Regarding MRL Differences With the United States

A Canadian registrant provided a comprehensive comparison of the proposed Canadian MRLs for its products listed in PMRL2006-01 to established American tolerances, while recognizing that some significant differences are due to different use patterns in the two countries. However, without providing specific examples, the registrant questioned why proposed MRLs for crops not grown in Canada differed from corresponding American tolerances, even though the same data were used to establish both. The registrant further claimed that differing values resulted when the same residue data were available to both Canada and the United States, with specific reference to discrepancies for cyprodinil, fludioxonil, lambda-cyhalothrin and metalaxyl.

While recognizing that the PMRA has often not been provided with the available crop residue data upon which the American tolerances have been established, the registrant recommended that the PMRA and the USEPA work together to harmonize the processes to establish MRLs and tolerances.

The registrant requested that consideration be given to the MRL discrepancies outlined in the submitted table before they are established and stated that, as a minimum, the default/general MRL of 0.1 ppm should be maintained so that trade is not disrupted.

A trade association also made a general claim that 42 American tolerances for stone fruits are above the 0.1 ppm Canadian default MRL, therefore requiring considerable resources to prepare data packages and convince registrants to support import tolerances. The association also

believes that accepting American tolerances above 0.1 ppm should be equally protective of Canadian consumers given the similarity in diet between the two countries.

Response

Differing use patterns (rate, number of applications, timing of applications, PHIs) between countries may result from differing pests/pest pressures or existing integrated pest management strategies such that one would expect differing residue levels remaining in or on food at harvest. In addition, regional climatic differences can result in varying food residues leading to the requirement for differing MRLs/tolerances.

